

MAY 02 2005

Substitute PTO/SB/08A (08-03)  
U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE.

Substitute for form 1449A/P (Modified)  <b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  (use as many sheets as necessary).			<b>Complete if Known</b>		
			Application Number	10/016,416	
			Filing Date	December 10, 2001	
			First Named Inventor	BAMDAD, Cynthia C.	
			Art Unit	1634	
			Examiner Name	LU, Frank Wei Min	
Sheet	1	of	7	Attorney Docket Number	A-67032-2 (463037-00022)

U.S. PATENT DOCUMENTS					
Examiner Initials*	Cite No. <sup>1</sup>	Document Number Number-Kind Code <sup>2</sup> (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
<i>W</i>	A1 *	4,707,440	11-17-1987	Stavrianopoulos	
	A2 *	4,755,458	07-05-1988	Rabbani et al.	
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Examiner Signature	<i>W. H. M.</i>	Date Considered	1/22/2005
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Examiner Signature	<i>W. Lu</i>	Date Considered	<i>12/10/01</i>
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W	A65	2003/0232354 A1	12-18-2003	Yu et al.	
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Examiner Initials*	Cite No. <sup>1</sup>	Foreign Patent Document Country Code <sup>2</sup> Number <sup>3</sup> Kind Code <sup>5</sup> (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T <sup>6</sup>
W	B1	EP 0 142 301 A1	05-22-1985	Serono Diagnostics Limited		
	B2 *	EP 0 229 943 A1	07-29-1987	Molecular Biosystems, Inc.		
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	B18 *	WO 98/20162 A2/A3	05-14-1998	Clinical Micro Sensors, Inc.		

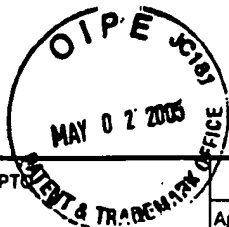
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			Art Unit	1634	
			Examiner Name	LU, Frank Wei Min	
Sheet	4	of	7	Attorney Docket Number	A-67032-2 (463037-00022)

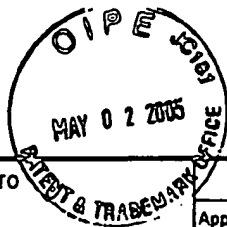
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u	B19	WO 98/31839 A2/A3	07-23-1998	Presidents & Fellows of Harvard College		
	B20 *	WO 98/35232 A2/A3	08-13-1998	University of North Carolina at Chapel Hill		
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NON PATENT LITERATURE DOCUMENTS						
Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.				T <sup>4</sup>
u	C1 *	AIZAWA, M., et al., "Integrated molecular systems for biosensors," <i>Sens. Actuators B Chem.</i> 24(1&3):1-5 (Mar. 1995).				
	C2 *	ALLEMAN, K.S., et al., "Electrochemical rectification at a monolayer-modified electrode," <i>J. Phys. Chem.</i> 100:17050-17058 (Oct. 1996).				
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	C22	GAFNI, Y., et al., "Biomimetic Ion-Binding Monolayers on Gold and Their Characterization by AC-Impedance Spectroscopy," <i>Chem. Eur. J.</i> 2(7):759-766 (1996).		
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✓	C24 *	HEGNER, M., et al., "Immobilizing DNA on gold via thiol modification for atomic force microscopy imaging in buffer solutions," <i>FEBS Lett.</i> 336(3):452-456 (Dec. 1993).		

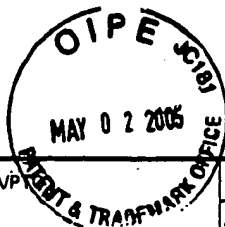
Examiner Signature	<i>Mike m</i>	Date Considered	<i>1/22/2005</i>
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Substitute for form 1449A/P (Modified)			<b>Complete if Known</b>		
<b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  (use as many sheets as necessary)			Application Number	10/016,416	
			Filing Date	December 10, 2001	
			First Named Inventor	BAMDAD, Cynthia C.	
			Art Unit	1634	
			Examiner Name	LU, Frank Wei Min	
Sheet	6	of	7	Attorney Docket Number	A-67032-2 (463037-00022)

## NON PATENT LITERATURE DOCUMENTS

Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>
<i>W</i>	C25	HERNE, T.M., et al., "Characterization of DNA Probes Immobilized on Gold Surfaces," <i>J. Am. Chem. Soc.</i> 119(38):8916-8920 (Sep. 1987).	
	C26	IHARA, T., et al., "Gene sensor using ferrocenyl oligonucleotide," <i>Chem. Commun.</i> 17:1609-1610 (1997).	
	C27	KATZ, E., et al., "Application of stilbene-(4,4'-diisothiocyanate)-2,2'-disulfonic acid as a bifunctional reagent for the organization of organic materials and proteins onto electrode surfaces," <i>J. Electroanal. Chem.</i> 354(1&2):129-144 (1993).	
	C28	KATZ, E., et al., "Electrical contact of redox enzymes with electrodes: novel approaches for amperometric biosensors," <i>Bioelectrochem. Bioenerg.</i> 42(1):95-104 (1997).	
	C29	KATZ, E., et al., "Electron Transfer in Self-Assembled Monolayers of N-Methyl-N'-carboxyalkyl-4,4'-bipyridinium Linked to Gold Electrodes," <i>Langmuir</i> 9(5):1392-1396 (May. 1993).	
	C30	KUNITAKE, M., et al., "Interfacial buffer effect of self-assembled monolayers of a carboxylic acid terminated alkanethiol of a gold electrode," <i>J. Chem. Soc. Chem. Commun.</i> 5:563-564 (1994).	
	C31	KUNITAKE, M., et al., "Transmembrane rectified electron transfer through $\pi$ -conjugated electroactive langmuir-blodgett monolayers on gold electrodes," <i>Bull. Chem. Soc. Jpn.</i> 67(2):373-378 (1994).	
	C32	LI, J., et al., "Viologen-thiol self-assembled monolayers for immobilized horseradish peroxidase at gold electrode surface," <i>Electrochim. Acta</i> 42(6):961-967 (1997).	
	C33	LIEDBERG, B., et al., "Self-Assembly of $\alpha$ -Functionalized Terthiophenes on Gold," <i>J. Phys. Chem. B</i> , Jul. 1997 101(31):5951-5962 (Jul. 1997).	
	C34	LINDHOLM-SETHSON, B., "Electrochemistry at Ultrathin Organic Films at Planar Gold Electrodes," <i>Langmuir</i> 12(13):3305-3314 (Jun. 1996).	
	C35	MANDLER, D., et al., "Applications of self-assembled monolayers in electroanalytical chemistry," <i>Electroanalysis</i> 8(3):207-213 (1996).	
	C36 *	MEADE, T.J., "Driving-force effects on the rate of long-range electron transfer in ruthenium-modified cytochrome c," <i>J. Am. Chem. Soc.</i> 111(12):4353-4356 (Jun. 1989).	
	C37 *	MEADE, T.J., et al., "Electron Transfer through DNA: site-specific modification of duplex DNA with ruthenium donors and acceptors," <i>Angew Chem. Int. Ed. Engl.</i> 34(3):352-354 (Feb. 1995).	
	C38 *	MILLER, C., "Absorbed $\omega$ -hydroxy thiol monolayers on gold electrodes: evidence for electron tunneling to redox species in solution," <i>J. Phys. Chem.</i> 95:877-886 (1991).	
	C39	NIWA, M., et al., "Specific binding of concanavalin A to glycolipid monolayers on gold electrodes," <i>J. Chem. Soc. Chem. Commun.</i> 7:547-549 (1992).	
	C40 *	PURUGGANAN, M.D., et al., "Accelerated electron transfer between metal complexes mediated by DNA," <i>Science</i> 241(4873):1645-1649 (Sep. 1988).	
	C41	SABATANI, E., et al., "Thioaromatic monolayers on gold: a new family of self-assembling monolayers," <i>Langmuir</i> 9(11):2974-2981 (Nov. 1993).	
<i>✓</i>	C42	SAKAMOTO, S., et al., "Design and synthesis of flavin-conjugated peptines and assembly on a gold electrode," <i>J. Chem. Soc. Perkin Transact. 2</i> 22(11):2319-2326 (1996).	

Examiner Signature	<i>[Signature]</i>	Date Considered	<i>[Signature]</i>
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				Application Number	10/016,416
				Filing Date	December 10, 2001
				First Named Inventor	BAMDAD, Cynthia C.
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<i>W</i>	C43	SMALLEY, J., et al., "Kinetics of Electron Transfer through Ferrocene-Terminated Alanethiol Monolayers Gold," <i>J. Phys. Chem.</i> 99(35):13141-13149 (Aug. 1995).	✓
	C44	SMITH, E., et al., "Corticotropin releasing factor induction of leukocyte-derived immunoreactive ACTH and endorphins," <i>Nature</i> 321(6073):881-882 (Jun. 1986).	✓
	C45	SMITH, L., et al., "Mapping and Sequencing the Human Genome: How to Proceed," <i>Biotechnology</i> 5:933-942 (1987).	✓
	C46	SMITH, L., et al., "The synthesis and use of fluorescent oligonucleotides in DNA sequence analysis," <i>Meth. Enzymol.</i> 155:260-301(1987).	✓
	C47	STEINBERG, S., et al., "Ion-Selective Monolayer Membranes Based upon Self-Assembling Tetradentate Ligand Monolayers on Gold Electrodes. 2. Effect of Applied Potential on Ion Binding," <i>J. Am. Chem. Soc.</i> 113(14):5176-5182 (Jul. 1991).	✓
	C48	STEINBERG, S., et al., "Ion-Selective Monolayer Membranes Based upon Self-Assembling Tetradentate Ligand Monolayers on Gold Electrodes. 3. Application as Selective Ion Sensors," <i>Langmuir</i> 8(4):1183-1187 (Apr. 1992).	✓
	C49 *	STORHOFF, J., et al., "One-pot colorimetric differentiation of polynucleotides with single base imperfections using gold nanoparticles probes," <i>J. Am. Chem. Soc.</i> 120(9):1959-1964 (Mar. 1998).	✓
	C50	TAKEHARA, K., et al., "An ion-gate response of the cysteine-containing depeptide monolayers formed on a gold electrode. The effects of Alkaline earth ions," <i>Bioelectrochem. Bioenerg.</i> 39(1):135-138 (Feb. 1996).	✓
	C51 *	UOSAKI, K., et al., "A Self-Assembled Monolayer of Ferrocenylalkane Thiols on Gold as an Electron Mediator for the Reduction of Fe(III)-EDTA in Solution," <i>Electrochem. Acta.</i> 36(11/12):1799-1801 (1991).	✓
	C52	WALLACE, J., et al., "Electron Transfer of Yeast Cytochrome C Immobilized On Sam Modified Gold Electrodes", <i>Book of Abstracts, 214th ACS National Meeting</i> , Las Vegas, NV, PHYS-326, American Chemical Society: Washington, DC (September 7-11 1997).	✓
<i>W</i>	C53	WILLNER, I., et al., "Photoregulated Binding of Spiropyran-Modified Concanavalin A to Monosaccharid-Functionalized Self-Assembled Monolayers on Gold Electrodes," <i>J. Am. Chem. Soc.</i> 115(11):4937-4938 (Jun. 1993).	✓

Examiner Signature	<i>W. M. Lu</i>	Date Considered	<i>1/2/2005</i>
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